#### YADKIN COUNTY, NC Board of Commissioners

#### Statement of Zoning Consistency pursuant to N.C.G.S. 153A-341

Re: Proposed Zoning Text Amendment: Article 17. Section 8. <u>Mixed Uses</u> (delete), along with adjustment of same in Article 11, Table of Uses, and adjustment of definition of same, Article 21).

As we the Board of Commissioners of Yadkin County have found the proposed amendment to offer increased and enhanced opportunities for flexibility, and to create increased or improved options in living and working environments:

We find the proposed text amendment to be consistent with the general goal to "promote flexibility in development regulations", listed in Section 5.4 on Page 51 of the Yadkin County Land Use Plan; and consistent specifically with the recommendation listed in Section 5.7.5.11 on Page 74 of the Plan: "Mixed-use commercial development shall be encouraged where appropriate and where compatible with surrounding residential uses."

[Additional findings]		•				
					•	

We therefore consider the proposed rezoning to be reasonable and in the public interest.

Dishery Clark Styllips
Chairman

Clerk

#### YADKIN COUNTY, NC Board of Commissioners

#### Statement of Zoning Consistency pursuant to N.C.G.S. 153A-341

Re: Proposed Zoning Text Amendments: Articles 11, 17, and 21: Regarding the principle land use referenced in the ordinance as Drinking Establishments.

As we the Board of Commissioners of Yadkin County have found the proposed amendments to offer improved and enhanced review of a specific land use having potentially adverse impact on surrounding properties, and mitigation of a potential deterrence to economic development.

We find the proposed text amendment to be consistent with the three major aims of the Yadkin County Land Use Plan, as listed in Section 5.6 on Page 53 of said Plan:

"...to balance: 1) individual property rights with the public interest, 2) the free market economic system with appropriate public intervention, and 3) economic development with environmental protection."

Additional findings]	•			**		
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We therefore conside	r the proposed	text amend	ment to be re	asonable and in	the public intere	st.

Signed: Dinberly Clark Hylling
Chairman, Yadkin County Board of Commissioners

Date: September 15, 2008

Capital Projects Fund

Dept: 5-D Project

Description	Account Number	Original Budget	Increase/(Decrease)	Amended Budget
Travel	4054925- 54010	-0-	2,000.00	2,000.00
Site Prep and Construction	4054925- 51542	9,285,000.00	(2,000.00)	9,283,000.00

To amend for travel expenses for workshop in Texas.

Date: September 15, 2008

General Fund

**Dept**: Information Services

Description	Account Number	Original Budget	Increase/(Decrease)	Amended Budget
Appropriated Fund Balance	1044000- 49000	2,177,689.21	149,668.26	2,327,357.47
Wireland Funds From E- 911	1054210- 52014	-0-	149,668.26	149,668.26

To move the remaining wireland funds that were in the General Fund at 6/30/08 into the 2008-2009 fiscal year budget to be used.

Date: September 15, 2008

#### General Fund

Dept: Communications

Description	Account Number	Original Budget	Increase/(Decrease)	Amended Budget
EMD TOOLKIT GRANT	1044330- 42329	-0-	28,961.24	28,961.24
EQUIPMENT	1054311- 56010	2,000.00	28,961.24	30,961.24

To amend for the Emergency Medical Dispatch (toolkit) Grant payment received in August 2008. Grant No. AD-08-1505.07/08.



Schnabel Engineering South, PC

Phone (336) 274-9456 Fax (336) 274-9486 www.schnabel-eng.com

September 11, 2008

Randy Darden
Acting Yadkin County Manager
Yadkin County
217 East Willow Street
Yadkinville, NC 27055

SUBJECT:

Deep Creek Watershed Dam 5D, Yadkin County, NC

**Engineering Services During Construction** 

Dear Mr. Darden:

We are pleased to present this proposal for engineering services during construction of the Deep Creek Watershed Dam 5D. We have attached the current construction schedule, which shows the manpower timeframes used for budgeting. In addition, we have attached our Quality Assurance Plan and Inspection Staffing Plan. These documents describe the general assignments and responsibilities for various staff proposed for the project. The attached worksheet provides a breakdown of the estimated number of hours, billing rates, and expenses for the engineering services during construction. As you can see, we have included a 6 percent escalation in fees based on an assumed 4 percent per year increase and the proposed construction duration. Lastly, we have added a 5 percent contingency to account for possible changes in construction schedule.

#### BASIS OF COMPENSATION

The basis of compensation for the engineering services outlined above is as follows:

Yadkin County shall pay Schnabel Engineering for services rendered under this Agreement on a Time and Materials basis that shall not exceed \$2,480,841.00 without written authorization. The current personnel rates are included as an attachment to this Exhibit and applicable through December 31, 2008. As stated above, it is expected that our annual rates will increase by approximately 4 percent per year. The cost of this increase in rates is included in the Time and Materials budget estimate above.

#### **AGREEMENT**

Please review the scope of services and the attached Contract Terms and Conditions for our services. If you require changes, or have any questions or concerns, please call. If the proposal and attached contract are acceptable, please sign two copies of the Agreement and return one of the signed originals to me for our files.

We look forward to the successful completion of this project. If you need additional information or have any questions, please call.

> Sincerely, ( aous 2

Donald L. Basinger, P.E. Principal

Schnabel Engineering South, PC.	Yadkin County
By: Donald L. Basinger, P.E.	By: Kimberly Clark Phillips
Signature Mondel & Ban	Signature: Dinberfclant Philly
Title: Senior Vice President	Title: Chairman Yadkin County Commissioner
Date: Sapt 11, 2008	Date: 9/15/08

Robert Cannon, Tom Fitzgerald, Tillman Marshall File

cc:

Attachments: Contract Terms and Conditions

Schnabel Engineering 2008 Personnel Rates

Quality Assurance Plan Inspection Staffing Plan

Deep Creek Watershed 5D Construction Schedule Deep Creek 5D Construction Estimate – Schnabel Staff

## SCHNABEL ENGINEERING SOUTH, P.C. STANDARD CONTRACT TERMS AND CONDITIONS

#### 1. DEFINITIONS

- 1.1 Schnabel Engineering South, P.C., the "Engineer," agrees to provide Professional Services, as delineated in the attached Proposal. "Engineer" means Engineer and its employees, and subcontractors.
- 1.2 The "Client" is the other party to this "Agreement."
- 1.3 The "Contractor" is the responsible party providing construction for the subject Project.

#### ENTIRE AGREEMENT, SCOPE OF WORK

- 2.1 The Agreement between Engineer and Client consists of the Proposal, these Standard Contract Terms and Conditions, and any other exhibits or attachments referenced in the Proposal. Together these elements will constitute the entire Agreement, superseding all prior written or oral negotiations, statements, representations, correspondence, and/or agreements. The Services to be provided by Engineer pursuant to this Agreement are described in the attached Proposal and include the Scope of Work. Both Client and Engineer must mutually acknowledge any changes to this Agreement in writing. All work performed by Engineer on or relating to the Project is subject to the terms and limitations of this Agreement.
- 2.2 If work is performed, but the parties do not reach agreement concerning modifications to the Scope of Work or compensation, then the terms and conditions of this Agreement apply to such work. Disputes concerning modifications to Scope of Work or compensation shall be resolved pursuant to Article 11, "Dispute Resolution."

#### 3. STANDARD OF CARE, DISCLAIMER OF WARRANTIES

3.1 Engineer will strive to perform Services under this Agreement in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation and no warranty or guarantee, either express or implied, is included or intended by this Agreement.

#### 4. SITE ACCESS, SITE CONDITIONS, SAMPLES

- 4.1 Client will provide rights of entry and access for Engineer to perform its Services.
- 4.2 Engineer will take reasonable precautions to avoid damage or injury to subterranean structures or utilities in the prosecution of his work. Client agrees to advise Engineer of known or suspected underground features in the area of the work, and Engineer will not be responsible for damage to below grade features not brought to its attention, or incorrectly shown on plans provided.
- 4.3 Client shall promptly pay and be responsible for the removal and lawful disposal of contaminated samples and cuttings, and hazardous substances, unless other arrangements are mutually agreed in writing.

#### 5. OWNERSHIP OF DOCUMENTS, RESTRICTIONS ON REUSE

- All documents, including opinions, conclusions, certificates, reports, drawings and specifications and other documents, prepared or furnished by Engineer and Engineer's independent professional consultants pursuant to this Agreement (collectively "Documents") are instruments of Service. Engineer retains all ownership and property interests in the Documents, including all common law, statutory and other reserved rights, including copyrights, whether or not the Project is completed. Client may make and retain copies of them for information and reference in connection with the use and occupancy of the Project; however, such copies are not intended or represented to be suitable for reuse by others, and may not be used on other projects or for additions to this Project outside the Scope of the Work.
- 5.2 At Client's request, client may negotiate with Engineer to acquire ownership of Documents for a mutually agreed amount. If Client acquires ownership of Documents prepared by Engineer, Client agrees: a) that any subsequent reuse or modification of them by Client or any party obtaining them through Client will be at Client's sole risk and without liability to Engineer, and b) client will defend, indemnify and hold harmless Engineer from and against any claims, damages, and liabilities arising from or related to any use, reuse or modification of Documents by Client or any party obtaining them through Client. Client agrees that Engineer may retain copies of all documents for its files.
- 5.3 Electronic communications and CADD data transferred by Email, websites or computer disks (collectively "E-Data") are provided only as an accommodation by Engineer for the benefit of Client. Signed paper prints of documents constitute the contract deliverables. Client assumes the risk that E-Data may differ from the paper deliverables. Client agrees to indemnify and hold harmless Engineer from and against claims, damages, and liabilities for defects or inappropriate use of E-Data created or transmitted by Engineer.

#### 6. THIRD PARTY RELIANCE UPON DOCUMENTS

6.1 Engineer's performance of the Services, as set forth in this Agreement, is intended solely and exclusively for the Client's benefit and use. No party may claim under this Agreement as a third party beneficiary. Client agrees not to distribute, publish or otherwise disseminate Engineer's Documents, without first obtaining Engineer's prior written consent.

### SCHNABEL ENGINEERING SOUTH, P.C. STANDARD CONTRACT TERMS AND CONDITIONS

6.2 No third party may rely upon Engineer's Documents including, but not limited to, opinions, conclusions, certificates, reports, drawings and specifications unless Engineer has agreed to such reliance in advance and in writing.

#### 7. ASSIGNMENT, SUBCONTRACTING

- 7.1 Neither Client nor Engineer may delegate, assign, sublet, or transfer all or any part of this Agreement, including its duties or interest in this Agreement without the written consent of the other party.
- 7.2 Notwithstanding Section 7.1, Engineer may subcontract subsurface exploration, testing, and other supplemental services and assign accounts receivable as security for financial obligations without notification or consent of Client.

#### 8. TERMINATION, SUSPENSION

8.1 Either party upon 7 days' written notice may terminate this Agreement for convenience or material breach of Agreement. In the event of termination for convenience or material breach of Agreement, Engineer shall be paid for Services performed to the termination date, plus reasonable termination expenses.

#### 9. ALLOCATION OF RISK

- 9.1 Engineer's total cumulative liability to Client (including, but not limited to, attorneys' fees and costs awarded under this Agreement) irrespective of the form of action in which such liability is asserted by Client or others, shall not exceed the total compensation received by Engineer under this Agreement or \$25,000, whichever is less. Upon Client's written request, Engineer may negotiate an increase to this limitation in exchange for an additional agreed consideration for the increased limit.
- 9.2 Client and Engineer agree to limit each's liability to the other in the following respects: Neither party will have liability to the other for any special, consequential, incidental, exemplary, or penal losses or damages including but not limited to losses, damages or claims related to the unavailability of the other party's property or facility, shutdowns or service interruptions, loss of use, lost profits or revenue, inventory or use, charges or cost of capital or claims of the other party's customer.
- 9.3 The limitations of liability of this Agreement shall survive the expiration or termination of this Agreement.

#### 10. INDEMNIFICATION

- 10.1 Indemnification of Client. Subject to the provisions and limitations of this Agreement, Engineer agrees to indemnify and hold harmless Client, its shareholders, officers, directors, employees, and agents from and against any and all claims, suits, liabilities, damages, expenses (including without limitation reasonable attorney's fees and costs of defense) or other losses (collectively "Losses") to the extent caused by Engineer's negligent performance of its Services under this Agreement.
- 10.2 Indemnification of Engineer. Subject to the provisions and limitations of this Agreement, Client agrees to indemnify and hold harmless Engineer from and against any and all Losses to the extent caused by the negligence of Client, its employees, agents and contractors. In addition, except to the extent caused by Engineer's sole negligence, Client expressly agrees to defend, indemnify and hold harmless Engineer Entities from and against any and all Losses arising from or related to the existence, disposal, release, discharge, treatment or transportation of Hazardous Materials, or the exposure of any person to Hazardous Materials, or the degradation of the environment due to the presence, discharge, disposal, release of or exposure to Hazardous Material.

#### 11. DISPUTE RESOLUTION

- Claims, disputes, and other matters in controversy between Engineer and Client caused by or any way related to this Agreement will be submitted to non-binding mediation as a condition precedent to litigation. The cost for mediation including the mediator's fees, reproduction of documents, and miscellaneous out-of-pocket expenses will be borne equally by each party to this Agreement.
- 11.2 The law of the Commonwealth of Virginia will govern the validity of these terms, their interpretation and performance. Client and Engineer agree that venue for any litigation will be in the courts of the Commonwealth of Virginia and Engineer and Client both hereby waive any right to initiate any action in, or remove any action to, any other jurisdiction.

#### 12. SEVERABILITY

12.1 This Agreement reflects the entire agreement of the parties with respect to its terms and supersedes all prior agreements, whether written or oral. If any portion of this Agreement is void or voidable, such portion will be deemed stricken and the Agreement reformed to as closely approximate the stricken portions as the law allows.

#### SCHNABEL ENGINEERING SOUTH, P.C. YEAR 2008 STANDARD PERSONNEL RATES

STAFF CLASSIFICATIONS	HOURLY RATES
Principal	\$208
Senior Associate	\$172
Associate	\$149
Senior Scientist/Engineer	\$132
Project Engineer/Scientist	\$102
Senior Staff Engineer/Scientist	\$91
Staff Engineer/Scientist/Technologist	\$74
Senior Technician	\$67
Associate Technician	\$65
Drafter/CADD	\$85
Clerical/Admin	\$55

All non-salary and subcontractor costs will be billed at cost plus fifteen percent. Travel by personal auto to and from jobs is charged at the current IRS prevailing rate Charges for unit cost items are available on request.

All rates shall be subject to an annual adjustment Jan. 1 of each year.

For legal assistance, regular rates apply for initial support and research.

Time for depositions and expert testimony will be billed at 150% of the standard rate.

#### QUALITY ASSURANCE PLAN for DEEP CREEK WATERSHED SITE 5D

**Purpose:** The purpose of this Quality Assurance Plan (QAP) is to outline construction inspection requirements for the items of work required in the construction contract for the construction of Deep Creek Watershed Site 5D. This structure has been determined to be a high hazard structure. The high hazard designation therefore requires a high degree of construction inspection. The dam will be used for flood control for the Deep Creek Watershed and for municipal and industrial water supply for Yadkin County.

Responsibilities for a Local Contract: The Natural Resources Conservation Service is responsible for providing cost-share for the flood control portion of the structure, and accepting the completed works of improvement. The Yadkin County Soil and Water Conservation District in cooperation with Yadkin County are the local sponsors of the project. Yadkin County is the local contracting organization and is responsible for providing adequate land rights and providing cost-share for the water supply portion of the contract. The Design Engineer is Schnabel Engineering. The Contracting Officer's Technical Representative (COTR) Project Manager/Project Engineer is responsible for ensuring that the County and Federal Government's interests are protected and has quality assurance responsibility for installation of the works of improvement. The Construction Inspector's duties involve quality assurance testing, review of Registered Surveyor's survey data, daily documentation of project activities, coordinating with the Contractor's quality control personnel, and maintaining the as-built drawings. The Contractor is the company that installs the works of improvement.

Contractor: The Contractor should have previous experience in construction of dams. The dam will consist of an earth embankment section and a Roller Compacted Concrete (RCC) section. It is imperative that the Contractor has previous experience with RCC as well as constructing large earthfill dams. The Contractor's superintendent should have at least five years experience in construction and rehabilitation of dams that includes RCC construction.

The Contractor is responsible for Quality Control. The Contractor is responsible for submitting a quality control plan for approval and implementing the approved plan throughout the contract. The Contractor is responsible for assuring that all materials meet the requirements of the specifications and that all portions of the works of improvement meet the requirements of the plans and specifications. The Contractor is responsible for securing the services of a Registered Land Surveyor to lay out the work, provide interim checks during construction, provide surveys for quantity estimates for pay applications, and provide an as-built survey to show that all elements of the works meets contract requirements. The Contractor is responsible to conduct tests of materials and provide test results to document that all materials meet the requirements of the specifications and the drawings.

**Project Manager/Project Engineer:** The Project Manager/Project Engineer should have at least 10 years of experience in construction of dams including RCC and should have a proven record of maintaining good relations with Contractor personnel, local sponsors, and the ability to

direct the work of the Resident Project Representative. The Project Manager/Project Engineer will be responsible for technical review during construction and will be responsible for processing any design changes or specification changes during construction.

Resident Project Representative (RPR): The RPR should have at least 10 years of experience in construction of dams including RCC and should have a proven record of maintaining good relations with Contractor personnel, local sponsors, and the ability to direct the work of the Construction Inspectors. The RPR will be responsible for daily oversight of the Construction Inspection staff and be required to be on-site full time during RCC test section construction and RCC placement in the dam. In addition, the RPR shall be on-site for at least 75% of the remaining performance time and shall be responsible for determining that materials certifications are received and reviewed for compliance with the specifications prior to the materials being used in the structure. The RPR will coordinate with Arcadis for review and approval of submittals for the water withdrawal structure features. In addition, the RPR will coordinate with Arcadis to facilitate participation in progress meetings and Arcadis inspectors conduct inspection of water withdrawal features installation.

Contract Administrator: The designated Contract Administrator shall have a minimum of five years of general construction related experience. This individual will be responsible for assisting the Project Engineer and the Resident Project Representative with the processing of change orders, RFI, submittals, quantities and pay requests. This individual will assist with documentation of construction related activities as needed. It is anticipated that this individual will make periodic site visits.

Construction Inspector: The Construction Inspector should have experience in earthfill and concrete construction and testing. RCC experience would be desirable but is not required. The Inspector should have a proven record of maintaining good relations with Contractor personnel, landowners and local sponsors. The inspector must be experienced in the use of a nuclear density gauge, soils testing, concrete testing, materials verifications to include soils, drainfill, riprap, pipe, reinforcing steel, structural materials and interpretation of specifications and drawings. The Construction Inspector will report to the RPR and be required to be on-site each workday during the contract period. The Inspector shall be responsible for conducting the following minimum number of tests for Quality Assurance:

Earthfill –density tests (approximately 1 test per 750 CY)

RCC – 4 density tests per lift, 20 sets of 4 cylinders for compression tests

Fine Drainfill – 1 density test, 1 gradation per 750CY

Coarse Drainfill – 1 gradation per 750 CY

Concrete – air, temperature and slump for each truck load, one set of 4 cylinders for each planned pour greater than 20 CY.

Steel Reinforcement – check before each concrete pour.

Assistant Construction Inspector/Technicians: An additional construction inspector shall be on-site during the placement of earthfill, reinforced concrete, and during RCC placement to assist the Construction Inspector in testing. When earthfill, concrete and RCC are placed during the same day, multiple inspectors or technicians will likely be required to cover the various

Quality Assurance and testing requirements for each. Additionally, a Lab Manager will be used as necessary to coordinate field and laboratory testing and document results.

Construction Services Manager: The Construction Services Manager will be responsible for assisting the RPR with the coordination of the construction inspectors and technicians. This individual will provide technical oversight of testing procedures, review daily field reports, review laboratory and field testing data and results, and be available for periodic site visits.

**Equipment Needed:** The following minimum equipment should be available to the Resident Project Representative (RPR) and Inspectors:

Nuclear Density Gauge Concrete testing equipment Soils testing equipment to include sieves, proctor mold RCC testing equipment Digital Camera Camcorder

**Design Engineer:** The design engineer should be available for consultation and for on-site assistance at least 10% of the performance time.

Staffing Plan: The staffing plan for Quality Assurance is attached.

# Deep Creek Site 5D Dam Yadkin County, North Carolina Inspection Staffing Plan

#### CONTRACT ADMINISTRATION

- > Contracting Officer's Technical Representative (COTR) Project Manager/Project Engineer
  - Reviews of contractor deliverables
  - Coordinates with Design Engineers for any design modifications
  - Provides office support for Resident Project Representative for shop drawing review, RFI responses, tracking materials quantities for payment, etc.
  - Conducts final inspection
  - Reviews and approve project closeout documentation
- > Resident Project Representative (RPR) On Site
  - On-site representative responsible for overall construction oversight and direct communication with Contractor, Contracting Officer, Project Engineer, and Design Team
  - Reviews contractor submittals
  - Coordinates with Arcadis for review of Contractor Submittals for water take-off facilities
  - Reviews and tracks shop drawings
  - Reviews and approves contractor's payment applications
  - Responds to RFIs (with assistance of project team)
  - Reviews and processes contract change orders
  - Conducts regularly scheduled on-site progress meetings
- Contract Administration
  - Assists Resident Project Representative (RPR) and Project Manager/Project Engineer with processing change orders, logging and reviewing submittals, processing request for information (RFI), documenting quantities, and processing payment requests. It is assumed that this individual will be an Arcadis employee working under a subcontract agreement with Schnabel Engineering.

- > Administrative Assistance
  - Responsible for distribution of correspondence, reproduction, filing, and maintaining construction records.
- CADD Technician
  - Detailing design modifications
  - Preparation of Record drawings

#### **INSPECTION & TESTING SERVICES**

- Senior Geologist
  - Provide oversight and support for the foundation excavation for the earth and
     RCC dam.
  - Recommend foundation treatment as needed based on observed conditions.
  - Senior review and coordination of staff for foundation mapping
  - Oversight of foundation grouting program.
- Staff Geologist
  - Observe foundation excavation and approve RCC and earth dam foundation surfaces prior to dam construction
  - Perform foundation mapping and documentation.
- > Grouting Inspector
  - Observation and documentation of drilling and grouting operations.
  - Verification and documentation of drilling and grouting quantities.
- > Construction Inspector
  - Coordination with Contractor QC staff
  - Concrete QA field testing and inspection
  - Earth fill QA field testing
  - RCC QA field testing
  - RCC QA laboratory testing (on site laboratory)
- Assistant Construction Inspector/Technicians (min. 1 required earthfill and reinforced concrete; 2 during RCC placement))
  - Assist Construction Inspector
  - Concrete QA field testing and inspection
  - Earth fill QA field testing

- RCC QA field testing
- RCC QA laboratory testing (on site laboratory)
- Construction Services Manager
  - Responsible for technical review of on site testing activities and assisting with coordination of staff.
  - Review of Field and Laboratory Reports
  - Periodic site visits as needed to assist Resident Project Representative (RPR)
- > Arcadis Engineer and Construction Inspector
  - Arcadis will be expected to provide review, inspection, and participation in progress review meetings as appropriate for the installation of the water take-off facilities. This work is not included in this Scope of Services.

6	FOLINDATION EXCAVATION						
Ş	TOTAL CONTROLLED	72 days	5/6/09	5/18/09		2/6 (Caracas and Caracas and C	FOUNDATION EXCAVATION
2	RCC TEST SECTION, SAMPLING & EVALUATION	14 days.	2/26/09	3/17/09	•••••	2/26-(CALCA) RCC TEST SECTION	2/28_common RCC TEST SECTION. SAMPLING & EVALUATION
F	FOUNDATION PREP	31 days.	3/27/09	60/8/9		3/27 COUNDATION PREP	JUNDATION PREP
12	FOUNDATION GROUTING (RCC Section)	52 days	477/09	6/11/09	••••••	417	FOUNDATION GROUTING (RCC Section)
13	RCC DAM	77 days	2/8/09	8/21/09	÷	5/8-	Rec DAM
14	INTAKE TOWER STRUCTURE	61 days	2/2/09	90/22/12		5/5	5/5 CT. STATE OF THE STRUCTURE
15	WATER SUPPLY PIPE ENCASEMENT	42 days	5/22/09	7/20/09		5/22 🖪	CONTRACTOR WATER SUPPLY PIPE ENCASEMENT
16	DRAINAGE MANIFOLD	10 days	5/26/09	60/8/9	•••••	5/26	5/26 COLD DRAINAGE MANIFOLD
17.	поцен вискет	25 days	5/18/09	6/19/09		5/18	3/18 CENTRAL BUCKET
18	STILLING BASIN WALLS	23 days	4/17/09	5/19/09		4/17/21	STILLING BASIN WALLS
19	PRINCIPAL SPILLWAY CONDUIT	9 days	5/26/09	60/2/9	••••••	5/26	PRINCIPAL SPILLWAY CONDUIT
82	EXCAVATE ALLUVIUM FROM EMBANKMENT AREA	12 days	60/6//	7/20/09			7/3 COURT EXCAVATE ALLUVIUM FROM EMBANKMENT AREA
23	FOUNDATION GROUTING (Embankment)	53 days	60/11/1	9/28/09			7/17-GENERAL FOUNDATION GROUTING (Embankment)
22	PUNCHOUT RCC DAM	12 days	8/21/09	60/2/6			8/21 CELES PUNCHOUT RCC DAM
ಜ	EARTHFILL PLACEMENT	211 days	60/1/6	6/22/10	•••••		9/1 Section Control Co
24	SPILLWAY THANSITION WALLS	66 days	8/17/09	11/16/09			8/17 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
22	OGEE CREST	22 days	11/20/09	12/21/09			11/20
56	PARAPET	41 days	12/15/09	2/9/10			
27	PUNCHOUT PARAPET	11 days	2/12/10	2/26/10			
28	PUNCH OUT AUXILIARY SPILLWAY	11 days	2/26/10	3/12/10			2/26 CC PUNCH OUT AUXILIARY SPIL
53	PUNCH OUT PRINCIPLE SPILLWAY	11 days	3/15/10	3/29/10	 		3/15 CECEN PUNCH OUT PRINCIPLE S
စ္က	INSTRUMENTATION	302 days	5/1/09	6/25/10	*****	1/9	
31	CHAINLINK FENCE, GATES, ETC.	17 days	7/2/10	7/26/10	•••••		
88	SEED & MULCH	4 days	7/16/10	7/21/10			
33	PUNCH OUT SITEWORK	11 days	8/6/10	8/20/10			
34	PROJECT COMPLETION	22 days	8/6/10	9/6/10	******		
35	Manpower budget timeframes	462 days	12/1/08	9/6/10			
36	Task 1 - Resident Engineering/Office Support	462 days	12/1/08	9/6/10			
37	Task 2 - RCC Placement-Test Section	14 days	2/26/09	3/17/09		2/26 Task 2 - RCC Place	Task 2 - ROC Placement-Test Section
88	Task 2 - RCC Dam Construction	77 days	2/8/09	8/21/09		2/8/5	Task 2 - RCC Dam Construction
39	Task 3 - Earth and Concrete	309 days	4/17/09	6/22/10	•••••	4/17	
40	Task 4 - Geologic Mapping of RCC Foundation	51 days	3/9/09	5/18/09		3/9}	Task 4 - Geolbate Mapping of RCC Foundation
4	Task 5 - Grout Oversight - RCC	40 days	4/7/09	60/1/9		4/7	Task 5 - Grout Oversight - RCC
42	Task 5 - Groul Oversight - Embankment	53 days	7/17/09	9/28/09	•••••		7/174ser - Stranger - Task 5 - Grout Oversight - Embankment

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Comparison   Comparison   Control   Comparison   Control   Comparison   Control   Comparison   Control   Comparison   Control   Contro		Weekdays for task from		average hrs/wk				hotel/appt. weeks		Cost per day							
1985   1985				expected to work during		current		(calculated from MS Project		(commuting cost or hotel/appt &		Long Term Travel &	Number of Day or Overnight	Cost per trip from	Short Term Travel &	Other or	Total Manpower &
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Construction Positions to be Filled	-	holidays	task	⊣	ourly rates	Cost	Days)	Judgement)		days/week)	Living Total	Trips	Greensboro	Living Total	Misc Costs	Expenses
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	sident Project Representative - Tom Webber	462	444	40	3554	\$149	\$529.557	92.									\$603.936
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10   10   10   10   10   10   10   10	ntract Administrator - John Holshouser	462	444	10	889	\$110	\$97,737						75	\$100	\$7,500		\$105,237
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20   19   35   135   585   \$11.443	Gary Rogers		19	16	62	\$130	\$8,001										\$8,00
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\$2,228,967 6.0% assume Oct 2009 @4%/yr \$2,382,706 \$118,135 \$2,480,841 Travel & Living Total (from above):
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Laboratory Costs (onsite equipment and/or offsite resting costs)
Total Cost Estimate (today's dollars):
Escalation to Midpoint of Construction
Total Cost Estimate after Escalation;

GX2008 Projects/082/10021 (Yadkin Co Deep Creek Dam 5D PreConstruction Services)/Proposal for Construction Services\Deep Greek Construction - Schnabel Estimate of 7-30-08\_xtsConstruction Manpower Cost 9/11/2008 3:07 PM



Infrastructure, environment, facilities

Ms. Kim Clark Phillips County Manager Yadkin County Post Office Box 146 Yadkinville, North Carolina 27055

Subject: On Call Consulting Contract Additional Funding

Dear Ms. Phillips:

ARCADIS G&M of North Carolina, Inc. (ARCADIS) is pleased to submit our proposal for an on call consulting contract.

#### **Scope of Services**

#### Scope

- Miscellaneous engineering designs
- Interim manager duties
- Grant assistance
- Cost estimating
- Various meeting
- Printings, reproduction, travel etc.
- Jonesville WTP meetings

#### Schedule

The contract is for on call services and tasks will be accomplished upon request following any scheduling required.

ARCADIS G&M of North Carolina, Inc.
First Citizens Bank Plaza

128 South Tryon Street

Suite 1100 Charlotte

North Carolina 28202 Tel 704.752.4258

Fax 704.752.0271

www.arcadis-us.com

WATER RESOURCES

Date:

September 24,, 2008

Contact

Randy Darden, Jr. P.E.

Phone:

704.544.5434

Email:

randy.darden@arcadisus.com

Imagine the result

Addendum E.1

Page: 1/3

#### Compensation

This request is for the lump sum amount of \$20,000. The requests were approved at the September 15, 2008 Board meeting. This request covers additional meetings with Jonesville, interim manager assistance through September, and misc services.

Use or disclosure of information contained on this sheet is subject to the restriction and disclaimer located on the signature page of this document.

Addendum E.2

The standard ARCADIS terms and conditions of the original contract will remain in effect.

Thank you for the opportunity to provide this proposal. Please feel free to call me should you have any questions.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

Randy Darden, Jr., P.E.

Water Resources Department Manager

Authorized by:

Yadkin County, North Carolina (Owner)

County Manager

9/25/08

Date

Authorized by:

ARCADIS G&M of North Carolina, Inc. (Engineer)

Water Resources Department Manager

Date

This proposal and its contents shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract unless and until a properly executed authorization to perform is signed by both parties and becomes part of this document. The scope and price of this proposal will be superseded by the contract. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted **Additional Proposal** to ARCADIS as a result of—or in connection with—the submission of this proposal, ARCADIS and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use, or disclose the data contained in this proposal only to the extent



Infrastructure, environment, facilities

Ms. Kim Clark-Phillips Chairman Yadkin County Post Office Box 146 Yadkinville, North Carolina 27055

Subject:
Contracting Officer Contract
5-D Dam Project
Additional Funding

Dear Ms. Phillips:

ARCADIS G&M of North Carolina, Inc. (ARCADIS) is pleased to submit our request for additional funding to serve as Yadkin County's Contracting Officer for the 5-D project.

Scope of Services

Scope

- Project over site
- Permitting over site (404 401)
- Cost estimating and scheduling
- · Various meeting
- Bidding assistance and construction over site
- Engineering design review, if necessary
- Printings, reproduction, travel etc.
- Bidding of Mitigation Projects.

#### **Staffing**

ARCADIS will assign Mr. Randy Darden, Jr. PE as the Contracting Officer. Ms. Alex Apple will assist on day to day operations of the contract. ARCADIS also has a full

ARCADIS G&M of North Carolina,

Inc.

First Citizens Bank Plaza 128 South Tryon Street

Suite 1100

Charlotte

North Carolina 28202

Tel 704.752.4258

Fax 704.752.0271

www.arcadis-us.com

WATER RESOURCES

Date:

September 24, 2008

Contact

Randy Darden, Jr. P.E.

Phone:

704.544.5434

Email:

randy.darden@arcadisus.com

Addendum E.4

Page: 1/4

ARCADIS

Ms.Phillips
September 24, 2008

service dam construction and design section located in Tennessee to draw on for specialized technical issues that may arise.

#### Schedule

The authorization of ARCADIS as Contracting Officer to Yadkin County for the 5-D dam project was given at the Yadkin County Commissioners meeting on January 21, 2008. The project is anticipated to last approximately 3 years to include final permitting and construction.

Meetings were held with all parties on May 30, 2008 to establish a final time line for COE permit approval. Several additional critical activities are underway to ensure the permit is obtained. These activities are design and survey for Dinkins Bottom mitigation site. USDA is designing creek plugs to begin the flooding process on the 16 acre site. ARCADIS provided survey support. DENR staff with assistance from Yadkin County Staff and ARCADIS staff is providing the mitigation plan which is required prior to permit issuance, and finally development of proper easement documents to ensure required buffer restrictions are met.

The time line for the 404 permits consists of the mitigation plan, Dinkins Bottom design and easement schedule being complete and to the COE by July 1, 2008. Anticipated COE approval for 404 is July 15, 2008.

In addition a meeting was held with the LGC on May 28, 2008 in which they desired the bid date for the project to move forward to September 1, 2008 in order to ensure they have adequate time to review the application. To this end we will be assisting Schnabel with securing permits to accomplish this revised bid date.

#### Compensation

This request is for an additional lump sum amount of \$20,000 approved at the August 4 2008 Board Meeting. The standard ARCADIS terms and conditions of the original contract will remain in effect.

Thank you for the opportunity to provide this proposal. We look forward to working with Yadkin County on this exciting project! Please feel free to call me should you have any questions.

Sincerely,

ARCADIS G&M of North Carolina, Inc. .

Randy Darden, Jr., P.E.

Water Resources Department Manager

Authorized by:

Yadkin County, North Carolina

(Owner)

Chairman Board of Commissioners

Data

Authorized by:

ARCADIS G&M of North Carolina, Inc.

(Engineer)

Water Resources Department Manager

Date

This proposal and its contents shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract unless and until a properly executed authorization to perform is signed by both parties and becomes part of this document. The scope and price of this proposal will be superseded by the contract. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to ARCADIS as a result of—or in connection with—the submission of this proposal contract. Further, client shall have the right to duplicate, use, or disclose the data contained in this proposal only to the extent provided in the resulting contract.

**ARCADIS** 

Ms.Phillips
September 24, 2008

This proposal and its contents shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract unless and until a properly executed authorization to perform is signed by both parties and becomes part of this document. The scope and price of this proposal will be superseded by the contract. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to ARCADIS as a result of—or in connection with—the submission of this proposal. The client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use, or disclose the data contained in this proposal only to the extent provided in the resulting contract.

Page: 4/4

#### Hwy.601 Water Line Extension Project Ordinance

## Capital Project Ordinance Hwy. 601 Water Extension From Hanover Winery to Courtney Elementary School September 2008

Be it ordained by the Yadkin County Board of Commissioners, that pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following Capital Project Ordinance be adopted:

Section 1: The Project authorized is the building of a water line extension beginning at Hanover Winery and extending to Courtney Elementary School.

Section 2: The Officers of this unit are directed to proceed with the project.

Section 3: The following amounts are appropriated for the project:

Professional Services \$ 75,000 Site Prep and Construction 300,000 Contingency 25,000

\$ 400,000

Section 4: The following revenues will be made available to complete the project:

Transfer from General Fund \$ 400,000

\$ 400,000

Adopted this 15th day of September, 2008

Kim Clark Phillips, Chairman

Addendum F

Yadkin County Board of Commissioners